

Facility: Indian Point Unit 3 Task No.: N/A  
Task Title: Withdraw Control Rods to maintain JPM No.: 2003 NRC S1  
Tavg on program  
K/A Reference: 001 A2.03 (3.5/4.2)

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: \_\_\_\_\_ Actual Performance: X  
Classroom \_\_\_\_\_ Simulator X Plant \_\_\_\_\_

**READ TO THE EXAMINEE**

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions: The reactor is at 45% power. Control Rods are in manual.  
Tavg is below program for the current power level

Task Standard: The reactor is tripped due to multiple dropped control rods.

Required Materials: POP-3.1

General References: POP-3.1

Handouts: NONE

Initiating Cue: The CRS directs you to operate control rods as necessary to maintain  
Tavg on program

Time Critical Task: NO

Validation Time: 5 minutes

**SIMULATOR SETUP**

Reset to IC-29.

(Denote Critical Steps with an asterisk)

- \* **Performance Step: 1** Withdraw control rods in manual to maintain Tavg on program  
**Standard:** Locates In-Hold-Out switch and places switch in "OUT" direction.  
Verifies control rods are withdrawing
- Comment:** *Booth Instructor: Insert the following command:*  
**FILE DROPCBD**
- Performance Step: 2** Identifies multiple control rods dropped.  
**Standard:** Determines rod bottom lights are illuminated and reactor power  
and Tavg are dropping.
- Comment:**
- \* **Performance Step: 3** Determines requirement for reactor trip is met. Trips reactor.  
**Standard:** Depresses reactor trip pushbuttons, determines reactor has  
tripped by observing reactor trip breakers open and rod bottom  
lights are lit.
- Comment:**
- Terminating Cue:** When reactor tripped, inform the candidate the evaluation for this  
JPM is complete.

Job Performance Measure No.: 2003 NRC S1

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

Examiner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

INITIAL CONDITIONS:      The reactor is at 45% power. Control Rods are in manual.  
Tavg is below program for the current power level.

INITIATING CUE:          The CRS directs you to operate control rods as necessary to  
maintain Tavg on program.

Facility: Indian Point Unit 3 Task No.: 020 001 01 01

Task Title: Adjust Accumulator Level And/Or  
Pressure As Required To Maintain  
Parameters Within Specification JPM No.: 2003 NRC S2

K/A Reference: 006 A1.13 3.5/3.7

Examinee:

NRC Examiner:

Facility Evaluator:

Date:

Method of testing:

Simulated Performance: \_\_\_\_\_ Actual Performance: X  
Classroom \_\_\_\_\_ Simulator X Plant \_\_\_\_\_

### READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions: The plant is at 100% power.

31 Accumulator has a low level.

Task Standard: Accumulator is restored to operable condition with no alarms.

Required Materials: SOP SI-1

General References: SOP SI-1

Handouts: NONE

Initiating Cue: You are directed to fill the 31 Accumulator to 30% using 31 SI Pump, and clear all 31 Accumulator Alarms in accordance with SOP-SI-1, section 4.1.6 through step 18.

Time Critical Task: NO

Validation Time: 20 Minutes

**SIMULATOR SETUP**

Reset to IC-28

Have an operator standing by to control AFW flow

(Denote Critical Steps with an asterisk)

**Performance Step: 1** Obtain and review SOP SI-1.

**Standard:** Obtains and reviews SOP SI-1.

**Comment:**

**Performance Step: 2** Verify RCS pressure > 1650 psig.

**Standard:** Observe RCS pressure > 1650 psig.

**Comment:**

**Performance Step: 3** If the Refueling Water Purification Pump is in Service: STOP the pump in accordance with SOP SI-3. Ensure valve SI-841 is CLOSED, spent fuel pit demineralizer to RWST isolation.

**Standard:** Queries whether the Refueling Water Purification Pump is in service.

**Comment:** **CUE: This pump is normally secured.  
Refueling Water Purification Pump is NOT in service.**

**Performance Step: 4** Ensure SI-MOV-1810, RWST Outlet Isolation, is OPEN (SI Pump Room).

**Standard:** Observe valve position for SI-MOV-1810 OPEN can be verified by de-energized SI valve position white light or having NPO check it.

**Comment:** **CUE: NPO confirms that SI-MOV-1810 is OPEN.**

**Performance Step: 5** Review Unit Log to ensure motor starting requirements of SOP EL-4A are SATISFIED for the Safety Injection Pump.

**Standard:** Queries Log Review.

**Comment:** **CUE: CRS has reviewed log and starting requirements are SATISFIED for starting 31 SI Pump.**



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<b>Performance Step: 6</b>	If RCS temperature is GREATER THAN 350°F, then enter LCO 3.5.2 for #31 SI Pump.
<b>Standard:</b>	CRS notified about entry into LCO.
<b>Comment:</b>	<b>CUE: CRS acknowledges.</b>
* <b>Performance Step: 7</b>	START 31 SI Pump and verify adequate discharge pressure.
<b>Standard:</b>	Select START on switch for 31, red light ON, green light OFF. Observe discharge pressure on PI-922.
<b>Comment:</b>	
<b>Performance Step: 8</b>	Verify recirculation flow is 25 gpm or GREATER on FI-950, SI Pump Recirculation Flow Indicator.
<b>Standard:</b>	Call NPO to verify recirculation flow.
<b>Comment:</b>	<b>CUE: NPO reports recirc flow is 30 gpm.</b>
<b>Performance Step: 9</b>	Ensure SI-1837 Accumulator Fill Line Isolation is OPEN.
<b>Standard:</b>	Confirms SI-1837 OPEN by consulting last COL.
<b>Comment:</b>	<b>CUE: Confirmation is obtained that SI-1837 is OPEN.</b>
* <b>Performance Step: 10</b>	Vent the accumulator as necessary.
<b>Standard:</b>	No pressure alarms on 31 Accumulator when JPM is complete. (Steps for venting listed at end of JPM.)
<b>Comment:</b>	

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- \* **Performance Step: 11** Fill the accumulator by OPENING SI-AOV-890A, 31 Accumulator Fill Isolation.
- Standard:** Take switch to OPEN on SI-AOV-890A; red light ON, green light OFF.
- Comment:**
- 
- \* **Performance Step: 12** When desired level of 30% indicated level is reached, CLOSE fill isolation.
- Standard:** CLOSE SI-AOV-890A, when level approximately 30% BOTH HIGH and LOW level alarms must be CLEAR when JPM is complete.
- Comment:**
- 
- Performance Step: 13** When accumulator filling is complete, then STOP the running SI pump used for accumulator fill and position pump control switch per CRS.
- Standard:** Rotate switch to STOP; green light ON and red light OFF. Control switch placed in AUTO.
- Comment:**

- \* **Performance Step: 14** Venting SI Accumulator via SI-HCV-943: ensure SI-HCV-943 and NNE-AOV-863 are CLOSED.  
OPEN 31 SI Accumulator N2 valve, SI-AOV891A slowly  
OPEN SI-HCV-943 and RE-CLOSE  
When venting complete CLOSE 31 SI Accumulator N2 valve, SI-AOV-891A  
Complete Attachment 1.
- Standard:** Vent SI Accumulator via HCV-943: observes SI-HCV-943 and NNE-AOV-863 are CLOSED  
OPENS 31 SI Accumulator N2 valve, SI-AOV-891A.  
Red light LIT  
Slowly OPENS SI-HCV-943 and RE-CLOSES when venting is complete  
CLOSES 31 SI ACCUMULATOR N2 valve, SI-AOV-891A.  
Green light LIT  
States need to complete Attachment 1.
- Comment:** **CUE: Another operator will complete Attachment 1.**
- Performance Step: 15** Exit LCO previously entered.
- Standard:** CRS informed about exiting LCO.
- Comment:** **CUE: CRS acknowledges that LCO can be exited.**
- Performance Step: 16** Inform Evaluator that JPM is COMPLETE.
- Standard:** Evaluator informed.
- Comment:** **CUE: JPM is COMPLETE.**
- Terminating Cue:** 31 Accumulator is filled to approximately 30% and 31 Accumulator alarms are CLEAR.

Job Performance Measure No.: 2003 NRC S2

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

Examiner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

INITIAL CONDITIONS:      The plant is at 100% power.

31 Accumulator has a low level.

INITIATING CUE:      You are directed to fill the 31 Accumulator to 30% using 31 SI Pump, and clear all 31 Accumulator Alarms in accordance with SOP-SI-1, section 4.1.6 through step 18.

Facility: Indian Point Unit 3 Task No.: N/A  
Task Title: Depressurize The RCS Following A JPM No.: 2003 NRC S3  
SGTR  
K/A Reference: 038 EA1.03 (4.3/4.1)

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: \_\_\_\_\_ Actual Performance: X  
Classroom \_\_\_\_\_ Simulator X Plant \_\_\_\_\_

**READ TO THE EXAMINEE**

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions: A Steam Generator Tube Rupture has occurred.

The RCS has been cooled down to target temperature in accordance with E-3, Steam Generator Tube Rupture.

Task Standard: Depressurization is complete using pressurizer PORVs.

Required Materials: E-3

General References: E-3

Handouts: NONE

Initiating Cue: The CRS has directed you to perform depressurization to refill the pressurizer and terminate depressurization when the criteria are met. You are at step 18 of E-3.

Time Critical Task: NO

Validation Time: 15 minutes

**SIMULATOR SETUP**

Reset to IC-32

(Denote Critical Steps with an asterisk)

**Performance Step: 1** Depressurize RCS using PRZR Spray to minimize break flow and refill PRZR:

- Check normal PRZR spray – AVAILABLE.

**Standard:** Determines RCPs running.

**Comment:**

\* **Performance Step: 2** Initiate maximum PRZR spray.

**Standard:** Attempts to open spray valve. Spray valve will NOT open.

**Performance Step:** Go to step 20, page 24.

**Standard:** Refers to step 20.

**Comment:**

**CAUTION**

- The PRT may rupture IF a PRZR PORV is used to depressurize the RCS. This may result in Abnormal Containment Conditions.
- Cycling of the PRZR PORV should be minimized.

**NOTE**

The upper head region may void during RCS depressurization if RCPs are NOT running. This may result in a rapidly increasing PRZR level.

**Performance Step: 3** Depressurize RCS using PRZR PORV to minimize break flow and refill PRZR:

- Check PRZR PORVs – any available.

**Standard:** Both PORVs appear available with light indication for both PORVs and Block Valves.

**Comment:**



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\* **Performance Step: 4**      Open One PZR PORV

**Standard:**                      Places Control switch to open position. Verifies red light on, green light off. Checks RCS pressure decreasing.

**Comment:**                      **NOTE: If the candidate attempts to open PORV 455C, it will NOT open. Candidate must perform depressurization using PORV 456.**

**Performance Step: 5**      Check if conditions are met to stop depressurization

**Standard:**                      Checks termination criteria met.

- Pressurizer level >73%, OR
- RCS Pressure < Ruptured SG pressure with PZR level >14%, OR
- RCS subcooling <40°F

**Comment:**

\* **Performance Step: 6**      When any of the conditions above are met, Close PORV 456

**Standard:**                      Places control switch in close, verifies, green light on, red light off. RCS pressure stable or increasing

**Comment:**

**Terminating Cue:**              When termination criteria is met and the PORV is closed, the evaluation for this JPM is complete.

Job Performance Measure No.: 2003 NRC S3

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

Examiner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

INITIAL CONDITIONS:      A Steam Generator Tube Rupture has occurred.

The RCS has been cooled down to target temperature in accordance with E-3, Steam Generator Tube Rupture.

INITIATING CUE:      The CRS has directed you to perform depressurization to refill the pressurizer and terminate depressurization when the criteria are met. You are at step 18 of E-3.

Facility: Indian Point Unit 3 Task No.: 003 006 03 01  
Task Title: Start A Reactor Coolant Pump As JPM No.: 2003 NRC S4  
Per SOP RCS-1  
K/A Reference: 003 A2.03 (2.7/3.1)

Examinee:

NRC Examiner:

Facility Evaluator:

Date:

Method of testing:

Simulated Performance: \_\_\_\_\_ Actual Performance: X  
Classroom \_\_\_\_\_ Simulator X Plant \_\_\_\_\_

**READ TO THE EXAMINEE**

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions: The plant is in Mode 3 and preparations are being made for plant startup. A balance adjustment has been made on the #31 Reactor Coolant Pump and the pump is aligned to be started. Pump was secured 4 hours ago.

Task Standard: Start #31 RCP in accordance with SOP RCS-1.

Required Materials: SOP RCS-1

General References: SOP RCS-1

Handouts: NONE

Initiating Cue: You are directed to start the 31 RCP per SOP RCS-1, steps 4.1.14 – 4.1.25. Procedure Prerequisites are complete, and Unit Log verified to ensure RCP Rotation Requirements are satisfied.

The NPO reports the Bearing Lift Oil System is ready to start.

Time Critical Task: NO

Validation Time: 20 Minutes

**SIMULATOR SETUP**

Reset to IC-28

Have an operator standing by to control AFW flow

(Denote Critical Steps with an asterisk)

- \* **Performance Step: 1**      START the Bearing Lift Pump for 31 RCP.  
**Standard:**                      Turn handswitch to START for the 31 RCP Bearing Lift Pump.  
  
**Comment:**
- Performance Step: 2**      Verify minimum bearing lift oil pressure of 500 psig. (Panel SAF)  
**Standard:**                      Observe RCP bearing lift pressure white permissive light  
ILLUMINATED.  
  
**Comment:**
- Performance Step: 3**      Wait 2 minutes or longer prior to starting RCP.  
**Standard:**                      Wait 2 minutes.  
  
**Comment:**                      **CUE:    2 minutes have elapsed.**
- Performance Step: 4**      Review ONOP-RCS-5 RCP Malfunctions.  
**Standard:**                      Review ONOP-RCS-5 for Emergency Trip Criteria.  
  
**Comment:**
- Performance Step: 5**      Adjust 6.9kv voltage prior to and as RCP is started.  
**Standard:**                      Station an operator at tap changer and coordinate voltage  
adjustment as necessary.  
  
**Comment:**                      **CUE:    Another Operator is stationed at the tap changer  
(FCR).  
Voltage adjusted in MANUAL to the high end of  
normal range.  
When starting current decays bus voltage adjusted  
to normal value of at least 6.9kv.**

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- \* **Performance Step: 6** Start 31 RCP.  
**Standard:** Select START on 31 RCP handswitch.
- Comment:** **CUE: Instructor insert OVR IND RCS50A 90.**  
**Observe starting current dissipates in 30 seconds.**
- Performance Step: 7** Monitor Emergency Shutdown Parameters listed in step 2.16  
Reactor Coolant Pump Emergency Trip Criteria.  
**Standard:** Observe parameters in step 2.16; 31 RCP Motor winding  
temperature indicates 273°F.
- Comment:**
- \* **Performance Step: 8** Trip RCP 31 based upon motor winding temperature 273°F.  
**Standard:** RCP 31 tripped based upon motor winding temperature of 273°F.
- Comment:**
- Terminating Cue:** When the RCP has been tripped based upon high temperature,  
the evaluation for this JPM is complete

Job Performance Measure No.: 2003 NRC S4

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

Examiner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_



INITIAL CONDITIONS: The plant is in Mode 3 and preparations are being made for plant startup. A balance adjustment has been made on the #31 Reactor Coolant Pump and the pump is aligned to be started. Pump was secured 4 hours ago.

INITIATING CUE: You are directed to start the 31 RCP per SOP RCS-1, steps 4.1.14 – 4.1.25. Procedure Prerequisites are complete, and Unit Log verified to ensure RCP Rotation Requirements are satisfied.

The NPO reports the Bearing Lift Oil System is ready to start.

Facility: Indian Point Unit 3 Task No.: N/A  
Task Title: Respond to PRT High Pressure JPM No.: 2003 NRC S5  
K/A Reference: 007 A4.04 (2.6/2.6)

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: \_\_\_\_\_ Actual Performance:  X   
Classroom \_\_\_\_\_ Simulator  X  Plant \_\_\_\_\_

**READ TO THE EXAMINEE**

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions: A PORV has lifted and reclosed.

Task Standard: PRT pressure has been reduced below the alarm setpoint and the alarm on panel SAF is clear.

Required Materials: SOP-RCS-7

General References: SOP-RCS-7

Handouts: NONE

Initiating Cue: The CRS has directed you to reduce PRT pressure below alarm setpoint by venting the PRT to the vent header in accordance with SOP-RCS-7.

Time Critical Task: NO

Validation Time: 5 Minutes

**SIMULATOR SETUP**

Reset to IC-27

Place alarms in SILENCE

Have an operator standing by to control SG levels

(Denote Critical Steps with an asterisk)

- |                              |   |
|------------------------------|---|
| <b>Performance Step: 1</b>   | Contact Chemistry to ensure that purging to vent header will NOT cause an explosive atmosphere in LGDT being filled.                                  |
| <b>Standard:</b>             | Contacts Chemistry.   |
| <b>Comment:</b>              | <b>CUE: Purging the vent header will NOT cause explosive atmosphere in LGDT.</b>  |
| <br>                         |   |
| * <b>Performance Step: 2</b> | Ensure valve 550, N2 to PRT, is closed.   |
| <b>Standard:</b>             | Closes valve.   |
| <b>Comment:</b>              |   |
| <br>                         |   |
| * <b>Performance Step: 3</b> | Start a waste gas compressor per SOP-WDS-002, Gaseous Waste Disposal System.  |
| <b>Standard:</b>             | Contacts NPO to START Waste Gas Compressor.   |
| <b>Comment:</b>              | <b>CUE: 31 Waste Gas Compressor STARTED.</b>  |
| <br>                         |   |
| * <b>Performance Step: 4</b> | Ensure the following valves are OPEN:   |
|                              | <ul style="list-style-type: none"><li>• 1786 Containment Vent Header Isolation Valve</li><li>• 1787 Containment Vent Header Isolation Valve</li></ul> |
| <b>Standard:</b>             | Contacts NPO to verify valves OPEN.   |
| <b>Comment:</b>              | <b>CUE: NPO reports 1786/1787 are OPEN.</b>   |
| <br>                         |   |
| * <b>Performance Step: 5</b> | CLOSE 1610 N2 to RCDT (bottom of panel SKF).  |
| <b>Standard:</b>             | CLOSES 1610.  |
| <b>Comment:</b>              |   |

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- \* **Performance Step: 6** OPEN Vent Valve 516 (for PRT).  
**Standard:** OPENS 516.  
  
**Comment:**
- \* **Performance Step: 7** When desired PRT pressure is achieved, THEN:  
CLOSE Vent Valve 516 (for PRT on panel SAF).  
**Standard:** CLOSES valve when alarm CLEAR.  
**Comment:**
- Performance Step: 8** OPEN 1610 N2 to RCDT (bottom of panel SKF).  
**Standard:** OPENS valve.  
**Comment:**
- Performance Step: 9** SHUTDOWN Waste Gas Compressor per SOP-WDS-002, Gaseous Waste Disposal System.  
**Standard:** Contacts NPO to STOP 31 Waste Gas Compressor.  
**Comment:**
- Performance Step: 10** IF reactor is above Mode 5, THEN ensure the following valves are OPEN:
- 1786 Containment Vent Header Isolation Valve
  - 1787 Containment Vent Header Isolation Valve
- Standard:** Directs NPO to leave valves OPEN.  
  
**Comment:** **Cue: NPO reports 1786, 1787 open**
- Performance Step: 11** OPEN 550, N2 to PRT.  
**Standard:** OPENS 550.  
  
**Comment:**
- Terminating Cue:** When PRT pressure is within limits and venting is terminated, the evaluation for this JPM is complete

Job Performance Measure No.: 2003 NRC S5

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

Examiner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

INITIAL CONDITIONS:      A PORV has lifted.

INITIATING CUE:            The CRS has directed you to reduce PRT pressure below alarm setpoint by venting the PRT to the vent header in accordance with SOP-RCS-7.

Facility: Indian Point Unit 3 Task No.: 080 004 03 01  
Task Title: Transfer 6.9KV Buses 1 Through 4 JPM No.: 2003 NRC S6  
To Buses 5 And 6 (Station Aux  
Transformer)  
K/A Reference: 063 A4.01 3.3/3.1

Examinee:

NRC Examiner:

Facility Evaluator:

Date:

Method of testing:

Simulated Performance: \_\_\_\_\_ Actual Performance: X  
Classroom \_\_\_\_\_ Simulator X Plant \_\_\_\_\_

**READ TO THE EXAMINEE**

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions: Plant shutdown is in progress.

Buses 5 and 6 are energized from the Station Auxiliary Transformer.  
Busses 1-4 are energized from the Unit Auxiliary Transformer.

Task Standard: Observes Caution regarding MW and VAR loading. 50 volt limit observed. Bus 5 and 6 loading is below 2000 ampere each. Bus tie breakers 6900V Bus No. 1-5, 2-5, 3-6 and 4-6 ties are closed and unit feeder breakers 6900V Bus No. 1, 2, 3, and 4 normal feed are open.

Required Materials: SOP EL-5

General References: SOP EL-5

Handouts: NONE

Initiating Cue: You are directed to transfer 6.9KV buses 1, 2, 3 and 4 to the Station Aux Transformer (Bus 5 and 6) in accordance with SOP EL-5.

Time Critical Task: NO

Validation Time: 12 Minutes



**SIMULATOR SETUP**

Reset to IC-27

Place alarms in SILENCE

Have an operator standing by to control SG levels

(Denote Critical Steps with an asterisk)

**Performance Step: 1** Obtain and review SOP EL-5.  
**Standard:** Obtains and reviews SOP EL-5, section 4.4.

**Comment:**

**Performance Step: 2** Observe Cautions prior to transfer.  
**Standard:** Candidate checks MW output LESS THAN 40 MW and VARS are at zero.

**Comment:**

**Performance Step: 3** Ensure LESS THAN 100 volt difference between Station and Unit Auxiliary Transformers by adjusting MTG voltage or placing Station or Unit Auxiliary Transformers Tap Changers in MANUAL and adjusting volume.  
**Standard:** LESS THAN 100 volt difference between Station and Unit Auxiliary Transformer.

**Comment:**

\* **Performance Step: 4** Place 6900V Bus No. 1 Synchroscope in Bus 1 Bus 5 position.  
**Standard:** Synchroscope in Bus 1 Bus 5 position.

**Comment:**

\* **Performance Step: 5** If Synchroscope is at 12 o'clock then CLOSE Bus No. 1-5 tie breaker.  
**Standard:** Red light ON and green light OFF.

**Comment:**

\* **Performance Step: 6** OPEN 6900 Bus No. 1 Normal Feed Breaker.  
**Standard:** Green light ON and red light OFF.

**Comment:**

**Performance Step: 7** Place 6900V Bus No. 1 Synchroscope in OFF.

**Standard:** Synchroscope is in OFF position.

**Comment:**

**Performance Step: 8** Ensure LESS THAN 2000 amps on 6900V Bus No. 5.

**Standard:** LESS THAN 2000 amps on 6900V Bus No. 5.

**Comment:**

**Performance Step: 9** If both of the following breakers are CLOSED then ensure 480V Bus No. 2A-3A tie breaker is

**Standard:** Verify 2A-3A tie breaker is OPEN.

**Comment:**

**Performance Step: 10** Ensure LESS THAN 100 volt difference between Station and Unit Auxiliary Transformers by adjusting voltage or placing Station or Unit Auxiliary Transformers Tap Changers in MANUAL and adjusting voltage.

**Standard:** LESS THAN 100 volt difference between Station and Unit Auxiliary Transformers.

**Comment:**

\* **Performance Step: 11** Place 6900V Bus No. 2 Synchroscope in Bus 2 Bus 5.

**Standard:** Synchroscope in Bus 2 Bus 5 position.

**Comment:**

- 
- \* **Performance Step: 12** If Synchroscope is at 12 o'clock then CLOSE 6900V Bus No. 2-5 tie breaker.

**Standard:** Red light ON green light OFF.

**Comment:**

- \* **Performance Step: 13** OPEN 6900V Bus No. 2 Normal Feed Breaker.

**Standard:** Green light ON and red light OFF.

**Comment:**

**Performance Step: 14** Place 6900V Bus No. 2 Synchroscope in OFF.

**Standard:** Synchroscope in OFF.

**Comment:**

**Performance Step: 15** Ensure LESS THAN 2000 amps on 6900V Bus No. 5.

**Standard:** LESS THAN 2000 amps on 6900V Bus No. 5.

**Comment:**

**Performance Step: 16** If both of the following breakers are CLOSED then ensure 480V Bus No. 2A-3A Tie Breaker is OPEN. 480V Bus No. 2A Normal Feed and 480V Bus No. 3A Normal Feed.

**Standard:** Verify 2A-3A Tie Breaker is OPEN.

**Comment:**

**Performance Step: 17** Ensure LESS THAN 100 volt difference between Station and Unit Auxiliary Transformers by adjusting MTG voltage or placing Station or Unit Auxiliary Transformer Tap Changers in Manual and adjusting voltage.

**Standard:** LESS THAN 100 volt difference between Station and Unit Auxiliary Transformers.

**Comment:**

\* **Performance Step: 18** Place 6900V Bus No. 3 Synchroscope in Bus 3 Bus 6.

**Standard:** Synchroscope in Bus 3 Bus 6 position.

**Comment:**

\* **Performance Step: 19** If Synchroscope is at 12 o'clock then CLOSE 6900V Bus No. 3-6 Tie Breaker.

**Standard:** Red light ON and green light OFF.

**Comment:**

\* **Performance Step: 20** OPEN 6900V Bus No. 3 Normal Feed Breaker.

**Standard:** Green light ON and red light OFF.

**Comment:**

**Performance Step: 21** Place 6900V Bus No. 3 Synchroscope in OFF.

**Standard:** Synchroscope in OFF.

**Comment:**

**Performance Step: 22** Ensure LESS THAN 2000 amps on 6900V Bus No. 6.

**Standard:** LESS THAN 2000 amps on 6900V Bus No. 6.

**Comment:**

- 
- \* **Performance Step: 23** Place 6900V Bus No. 4 Synchroscope in Bus 4 Bus 6.  
**Standard:** Synchroscope in Bus 4 position.  
  
**Comment:**
- \* **Performance Step: 24** If Synchroscope is at 12 o'clock then CLOSE 6900V Bus No. 4-6 Tie Breaker.  
**Standard:** Red light ON and green light OFF.  
  
**Comment:**
- \* **Performance Step: 25** OPEN 6900V Bus No. 4 Normal Feed Breaker.  
**Standard:** Green light ON and red light OFF.  
  
**Comment:**
- Performance Step: 26** PLACE 6900V Bus No. 4 Synchroscope in OFF.  
**Standard:** Synchroscope in OFF.  
  
**Comment:**
- Performance Step: 27** Ensure LESS THAN 2000 amps on 6900V Bus No. 6.  
**Standard:** LESS THAN 2000 amps on 6900V Bus No. 6.  
  
**Comment:**
- Performance Step: 28** When transfer is complete then ensure the Unit and Station Auxiliary Transformer Tap Changers are in AUTO.  
**Standard:** Unit and Station Auxiliary Transformer Tap Changers are in AUTO.  
  
**Comment:**

**Performance Step: 29** Notify JPM Evaluator JPM is COMPLETE.

**Standard:** JPM Evaluator notified.

**Comment:**

**Terminating Cue:** Buses 1, 2, 3 and 4 transferred to the Station Auxiliary Transformer in accordance with SOP EL-5.

Job Performance Measure No.: 2003 NRC S6

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

Examiner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_



INITIAL CONDITIONS: Plant shutdown is in progress.

Buses 5 and 6 are energized from the Station Auxiliary Transformer. Buses 1-4 are energized from the Unit Auxiliary Transformer.

INITIATING CUE: You are directed to transfer 6.9KV buses 1, 2, 3 and 4 to the Station Aux Transformer (Bus 5 and 6) in accordance with SOP EL-5.

Facility:	Indian Point Unit 3	Task No.:	015 002 01 01
Task Title:	<u>Return A Power Range Drawer To Service</u>	JPM No.:	<u>2003 NRC S7</u>
K/A Reference:	015 A3.01 3.8/3.8 015 A4.01 3.6/3.6		015 A4.03 3.6/3.6 015 A4.04 3.3/3.3

Examinee: \_\_\_\_\_ NRC Examiner: \_\_\_\_\_

Facility Evaluator: \_\_\_\_\_ Date: \_\_\_\_\_

Method of testing:

Simulated Performance: _____	Actual Performance: <u>  X  </u>
Classroom _____ Simulator <u>  X  </u>	Plant _____

**READ TO THE EXAMINEE**

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions: Power Range Instrument N-41 was removed from service for repair.  
  
Repairs are complete and the Power Range Channel N-41 is ready to be returned to service.

Task Standard: Power Range N-41 returned to service in accordance with SOP-NI-1.

Required Materials: SOP-NI-1

General References: SOP-NI-1

Handouts: NONE

Initiating Cue: You are directed to place Power Range Channel N-41 back in service per SOP-NI-1, Attachment 2, beginning with step 8.0.

Time Critical Task: NO

Validation Time: 22 Minutes

**SIMULATOR SETUP**

Reset to IC-27

Place alarms in SILENCE

Have an operator standing by to control SG levels

(Denote Critical Steps with an asterisk)

- |                              |   |
|------------------------------|---|
| <b>Performance Step: 1</b>   | When the channel has been energized for GREATER THAN 30 minutes, then RETURN the channel to SERVICE.  |
| <b>Standard:</b>             | See steps 17 and 18 below.  |
| <b>Comment:</b>              | <b>CUE: 30 minutes has elapsed.</b>   |
|                              |   |
| * <b>Performance Step: 2</b> | Momentarily place the Dropped Rod Mode Switch for the affected channel in RESET and return to NORMAL.   |
| <b>Standard:</b>             | Momentarily place the Dropped Rod Mode Switch for the affected channel in RESET and return to NORMAL.   |
| <b>Comment:</b>              |   |
|                              |   |
| <b>Performance Step: 3</b>   | Check Dropped Rod Bypass Lamp Extinguished<br>Runback Chan N41 Lamp on Miscellaneous Control and Indication Panel is EXTINGUISHED<br>NIS power Range Dropped Rod Rod Stop Alarm on SBF-1 CLEAR.         |
| <b>Standard:</b>             | Verified Dropped Rod Bypass Lamp EXTINGUISHED.<br>Runback Chan N41 Lamp on Miscellaneous Control and Indication Panel is EXTINGUISHED.<br>NIS Power Range Dropped Rod Rod Stop Alarm on SBF-1 is CLEAR. |
| <b>Comment:</b>              | <b>Cue: NIS Power Range Dropped Rod Rod Stop Alarm on SBF-1 is clear</b>  |
|                              |   |
| * <b>Performance Step: 4</b> | Unblock the affected Dropped Rod Protection Bypass Relays by removing the Blocking Strip placed across the relays, as listed.   |
| <b>Standard:</b>             | N-41 Relays 1/NC41KX (Rx Protection Ch. 1 Rack E2) and 1/NC41KX (Rx Protection Ch. 1 Rack F2) unblocked.  |
| <b>Comment:</b>              |   |

---

<b>Performance Step: 5</b>	Verify NIS Rod Drop Bypass PR 1 Lamp on Panel FBF is EXTINGUISHED NIS Trip Bypass Alarm on Panel SBF-1 is CLEAR.
<b>Standard:</b>	Verified NIS Rod Drop Bypass PR 1 Lamp on Panel FBF is EXTINGUISHED; NIS Trip Bypass Alarm on Panel SBF-1 is CLEAR.
<b>Comment:</b>	<b>Cue: NIS Rod Drop Bypass PR 1 Lamp on Panel FBF is EXTINGUISHED</b> <b>Cue: NIS Trip Bypass Alarm on SBF-1 is clear</b>
<b>Performance Step: 6</b>	Ensure the Rod Control Mode Select Switch (FCF) is in MAN, to prevent unnecessary rod movement while performing the next step.
<b>Standard:</b>	Place or observe Rod Control Mode Select Switch in MANUAL.
<b>Comment:</b>	
* <b>Performance Step: 7</b>	Place the applicable Power Mismatch Bypass Switch in OPERATE (Miscellaneous Control and Indication Panel).
<b>Standard:</b>	Bypass Switch in OPERATE.
<b>Comment:</b>	
<b>Performance Step: 8</b>	When a minimum of two minutes has elapsed, then return the Rod Control Mode Select Switch to AUTO.
<b>Standard:</b>	Waited two minutes; Rod Control Selector Switch placed in AUTO.
<b>Comment:</b>	<b>CUE: Two minutes has elapsed.</b>

- 
- |   |  |
|---|--|
| <p><b>* Performance Step: 9</b></p> <p><b>Standard:</b></p> <p><b>Comment:</b></p>  | <p>Place both the Upper Section and Lower Section Switches (located on the Detector Current Comparator Drawer) in NORMAL.</p> <p>Placed switches in NORMAL; both channel defeat lights are extinguished.</p> |
| <br>  |  |
| <p><b>Performance Step: 10</b></p> <p><b>Standard:</b></p> <p><b>Comment:</b></p>   | <p>Check both Channel Defeat Lights are EXTINGUISHED.</p> <p>Checked both Channel Defeat Lights EXTINGUISHED.</p>  |
| <br>  |  |
| <p><b>* Performance Step: 11</b></p> <p><b>Standard:</b></p> <p><b>Comment:</b></p> | <p>Place the comparator Channel Defeat Switch (Located on the Comparator and Rate Drawer) in NORMAL.</p> <p>Placed Defeat Switch in NORMAL; Comparator Defeat Light EXTINGUISHED.</p>                        |
| <br>  |  |
| <p><b>Performance Step: 12</b></p> <p><b>Standard:</b></p> <p><b>Comment:</b></p>   | <p>Check Comparator Defeat Light is EXTINGUISHED.</p> <p>Checked Comparator Defeat Light EXTINGUISHED.</p>   |
| <br>  |  |
| <p><b>* Performance Step: 13</b></p> <p><b>Standard:</b></p> <p><b>Comment:</b></p> | <p>Place the applicable Rod Stop Bypass Switch in OPERATE (located on the Miscellaneous Control and Indication Panel).</p> <p>Placed Bypass Switch in OPERATE.</p>   |

- 
- \* **Performance Step: 14** Return the Overtemperature Delta-T Bistable Trip Switch for the affected Channel to the OPERATE position (N-41 Loop 1 Over Temp Trip Rack A-4, Ch. 1 (RED))
- Standard:** Placed Bistable Trip Switch in OPERATE.
- Comment:**
- 
- Performance Step: 15** Check Bistable Proving Lamp EXTINGUISHED.  
Overtemp Delta-T Channel Trip or Rod Stop Alarm CLEARED.  
Bistable Status Panel Lamp EXTINGUISHED.
- Standard:** Observed Bistable Lamps and Alarm (Panel SAF) EXTINGUISHED.
- Comment:** **Cue: Overtemp Delta-T Channel Trip or Rod Stop Alarm clear**  
**At evaluator's discretion, may ask where bistable lamps located or may have candidate locate bistable lamps to determine if they are extinguished.**
- 
- \* **Performance Step: 16** Place the applicable Channel Delta-T Defeat Switch 3T/411A located in Rack B-8, in NORMAL.
- Standard:** Placed Defeat Switch in NORMAL.
- Comment:**
- 
- \* **Performance Step: 17** Place the PR N41 Percent Power Computer Input in Limit Check:  
Press Omit Limit Check Key to bring up menu;  
Type in N0049A and press Address Key;  
Press Execute Key.
- Standard:** Placed Computer Input Back into Limit Check for Channel N41.
- Comment:**

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<b>Performance Step: 18</b>	If desired, change channels on NR-45 or Delta T recorders.
<b>Standard:</b>	
<b>Comment:</b>	<b>CUE: Not desired.</b>
<b>Performance Step: 19</b>	Exit applicable action statement.
<b>Standard:</b>	Informs CRS.
<b>Comment:</b>	<b>CUE: CRS acknowledges.</b>
<b>Performance Step: 20</b>	Notify Evaluator that JPM is complete.
<b>Standard:</b>	Notify JPM Evaluator.
<b>Comment:</b>	<b>CUE: JPM is complete.</b>
<b>Terminating Cue:</b>	When N-41 returned to service, the evaluation for this JPM is complete



Job Performance Measure No.: 2003 NRC S7

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

Examiner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

INITIAL CONDITIONS:

Power Range Instrument N-41 was removed from service for repair.

Repairs are complete and the Power Range Channel N-41 is ready to be returned to service.

INITIATING CUE:

You are directed to place Power Range Channel N-41 back in service per SOP-NI-1, Attachment 2, beginning with step 8.0.

Facility: Indian Point Unit 3 Task No.: 004 001 05 04  
Task Title: Locally Emergency Borate JPM No.: 2003 NRC P1  
K/A Reference: 068 AA1.11 3.9/4.1  
068 AA1.19 3.7/3.9

Examinee:

NRC Examiner:

Facility Evaluator:

Date:

Method of testing:

Simulated Performance:   X   Actual Performance:             
Classroom            Simulator            Plant   X  

**READ TO THE EXAMINEE**

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions: The CR has been evacuated due to a fire. Source Range count rate has not come on scale as expected. MCC-36A is energized and MCC-36B is deenergized.

Task Standard: Locally emergency borate in accordance with ONOP-FP-1A, Attachment 12

Required Materials: ONOP-FP-1A, Attachment 12  
AP-52

General References: ONOP-FP-1A, Attachment 12  
AP-52

Handouts: NONE

Initiating Cue: You are directed to locally emergency borate per ONOP-FP-1A, Attachment 12.

Time Critical Task: NO

Validation Time: 15 Minutes

(Denote Critical Steps with an asterisk)

**Performance Step: 1** Obtain and review ONOP-FP-1A, Attachment 12.

**Standard:** Obtains and reviews ONOP-FP-1A, Attachment 12.

**Comment:** **Note: Provide a copy of Attachment 12 when candidate has demonstrated knowledge of procedure location.**

\* **Performance Step: 2** Align one Boric Acid Transfer Pump to supply blender.

**Standard:** Verify CH-360 open, 31 Boric Acid Transfer Pump to 31 Boric Acid Filter.

Shut CH-370, 32 Boric Acid Transfer Pump Discharge Isolation to 31 Boric Acid Filter.

Verify 31 Boric Acid Transfer Pump energized at MCC-36A

**Comment:** **Evaluator Note: Cues depend on candidate choosing 31 Boric Acid Transfer Pump**

**CUE:** CH-360 stops rotating in the counter clockwise direction.

**CUE:** CH-370 stops rotating in the clockwise direction.

**Cue:** Breaker on MCC036A is closed

\* **Performance Step: 3** Close CH-HCV-104 and 105

**Standard:** Close valves by any local means

**Comment:** **CUE: Valves are closed**

\* **Performance Step: 4** Depress the clutch lever on MOV-333.

**Standard:** Depress the clutch lever on the MOV

**Comment:** **CUE: Clutch lever is depressed.**

\* **Performance Step: 5** Engage clutch by moving CH-MOV-333

**Standard:** Move the valve handwheel until clutch is engaged

**Comment:** **CUE: Clutch is engaged**

---

<b>Performance Step: 6</b>	Release the clutch
<b>Standard:</b>	Release the clutch lever
<b>Comment:</b>	<b>CUE:   Lever is released</b>
* <b>Performance Step: 7</b>	Open CH-MOV-333 by rotating the handwheel counter-clockwise
<b>Standard:</b>	Rotate handwheel counterclockwise until valve STOPS rotating.
<b>Comment:</b>	<b>CUE:   Valve stops rotating in the counterclockwise direction.</b>
* <b>Performance Step: 8</b>	Transfer control of 31 Boric Acid Transfer pump to LOCAL
<b>Standard:</b>	Places hand switch for 31 Boric Acid Transfer pump in LOCAL
<b>Comment:</b>	<b>CUE:   31 Boric Acid Transfer Pump is in LOCAL</b>
* <b>Performance Step: 9</b>	Start 31 Boric Acid Transfer Pump in fast speed
<b>Standard:</b>	Select FAST for the 31 Boric Acid Transfer Pump
<b>Comment:</b>	<b>CUE:   The switch is in FAST and the red FAST light is lit for 31 BATP</b>
<b>Performance Step: 10</b>	Dispatch NPO to monitor RCP seal injection flow. (PAB, 41 Ft, locked penetration area)
<b>Standard:</b>	NPO dispatched to read local seal injection flow indications
<b>Comment:</b>	<b>CUE:   Have the candidate remain at the Charging Station. Cue that NPO reports that all local seal injection flow indicates 6-7 GPM</b>

- 
- \* **Performance Step: 11** Increase RCP seal injection of each RCP to 12 GPM by increasing charging pump speed
- Standard:** Increase charging pump speed to obtain RCP seal injection of 12 GPM per RCP.
- Comment:** **CUE:** When NPO indicates that RCP seal injection must be increased by increasing charging pump speed, then indicate that total charging flow is 45 GPM at charging pump speed control panel. When NPO goes to local indicators, inform him that seal injection flow is indicating approximately 12 GPM per RCP.
- \* **Performance Step: 12** Continue boration for greater than 35 minutes
- Standard:** Boration continued for greater than 35 minutes
- Comment:** **CUE:** 35 minutes have elapsed
- \* **Performance Step: 13** Secure 31 Boric Acid Transfer pump
- Standard:** Place 31 Boric Acid transfer pump speed switch in STOP
- Comment:** **CUE:** 31 Boric Acid Transfer Pump is stopped
- Terminating Cue:** When local emergency boration is performed in accordance with ONOP-FP-1A, the evaluation for this JPM is complete

Job Performance Measure No.: 2003 NRC P1

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

Examiner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## INITIAL CONDITIONS:

The CR has been evacuated due to a fire. Source Range count rate has not come on scale as expected. MCC-36A is energized and MCC-36B is deenergized.

## INITIATING CUE:

You are directed to locally emergency borate per ONOP-FP-1A, Attachment 12.



Number: <b>ONOP-FP-1A</b>	Title: <b>SAFE SHUTDOWN FROM OUTSIDE THE CONTROL ROOM</b>	Revision Number: <b>19</b>
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
<p style="text-align: center;"><b>Attachment 12</b> <b><u>EMERGENCY BORATION - LOCAL</u></b></p> <p style="text-align: right;">(Attachment page 1 of 2)</p> <ol style="list-style-type: none"> <li>1. ALIGN Boric Acid Transfer Pump to supply blender as follows: <ol style="list-style-type: none"> <li>a. <u>IF</u> desired to align 31 Boric Acid Transfer Pump, <u>THEN</u> PERFORM the following: <ol style="list-style-type: none"> <li>1) OPEN CH-360, 31 Boric Acid Transfer Pump Discharge Isolation To 31 Boric Acid Filter</li> <li>2) SHUT CH-370, 32 Boric Acid Transfer Pump Discharge Isolation To 31 Boric Acid Filter</li> <li>3) VERIFY 31 Boric Acid Transfer Pump, is energized at MCC-36A (7RH – 31 Boric Acid Transfer Pump)</li> </ol> </li> <li>b. <u>IF</u> desired to align 32 Boric Acid Transfer Pump, <u>THEN</u> PERFORM the following: <ol style="list-style-type: none"> <li>1) OPEN CH-370, 32 Boric Acid Transfer Pump Discharge Isolation To 31 Boric Acid Filter</li> <li>2) SHUT CH-360, 31 Boric Acid Transfer Pump Discharge Isolation To 31 Boric Acid Filter</li> <li>3) VERIFY 32 Boric Acid Transfer Pump, is energized at MCC-36B (7RH – 32 Boric Acid Transfer Pump)</li> </ol> </li> <li>c. CLOSE the following valves: <ul style="list-style-type: none"> <li>• CH-HCV-104, 32 Boric Acid Storage Tank Recirculation Flow Control Valve setting</li> <li>• CH-HCV-105, 31 Boric Acid Storage Tank Recirculation Flow Control Valve setting</li> </ul> </li> </ol> </li> <li>2. OPEN CH-MOV-333, Emergency Boration Valve, as follows: (PAB, 73 ft. Boric Acid Blender area) <ol style="list-style-type: none"> <li>a. DEPRESS CH-MOV-333 clutch lever.</li> <li>b. ENGAGE clutch by moving, as necessary, CH-MOV-333 handwheel.</li> <li>c. RELEASE clutch.</li> <li>d. OPEN CH-MOV-333 by rotating handwheel counterclockwise.</li> <li>e. <u>IF</u> unable to open CH-MOV-333, <u>THEN</u> PERFORM the following: <ol style="list-style-type: none"> <li>1) SECURE and BLEED OFF <u>BOTH</u> air supplies to CH-FCV-110A.</li> <li>2) OPEN CH-293, Boric Acid Blender Boric Acid Bypass Isolation.</li> </ol> </li> </ol> </li> </ol>		

ONOP-FP-1A  
FOLDOUT PAGE

**1. CST LEVEL CRITERIA**

IF CST level decreases to 3 feet, THEN DIRECT Maintenance to align city water supply by opening PCV-1187, 1188, and 1189 locally per ELC-004-FIR, APPENDIX "R" REPAIR.

**2. CONTROL ROOM REENTRY CRITERIA:**

WHEN FSS has completed Fire Brigade duties, THEN PERFORM the following:

- a. FSS - RELIEVE CRS at PAB 55 ft. local PRZR pressure and level Control panel
- b. CRS - WHEN relieved by FSS, THEN PERFORM the following from CR if possible:
  - MONITOR plant status.
  - OPERATE equipment.
  - ASSIST in Emergency Plan implementation.

**3. SERVICE WATER TEMPERATURE CRITERIA:**

IF Backup Service Water Pump(s) are in service AND discharge canal temperature is greater than or equal to 95°F, THEN SM should REQUEST that Unit 2 reduce power or shutdown to decrease discharge canal temperature to less than 95°F.

Number: <b>ONOP-FP-1A</b>	Title: <b>SAFE SHUTDOWN FROM OUTSIDE THE CONTROL ROOM</b>	Revision Number: <b>19</b>
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
<b><u>Attachment 12</u></b> <b><u>EMERGENCY BORATION - LOCAL</u></b>		
(Attachment page 2 of 2)		
3.	CONTROL Boric Acid Transfer Pumps as follows:  (31 BAT Pump/MCC-36A, 32 BAT Pump/MCC36B)  a. TRANSFER control of aligned boric acid transfer pump to LOCAL.  b. PLACE aligned Boric Acid Transfer Pump Speed Switch to FAST.	
4.	CONTROL Charging Flow as follows:  a. DISPATCH Nuclear NPO to monitor RCP Seal Injection Flows: <ul style="list-style-type: none"> <li>• FI-144, 31 RCP Seal Injection Flow Indicator (610)</li> <li>• FI-143, 32 RCP Seal Injection Flow Indicator (611)</li> <li>• FI-116, 33 RCP Seal Injection Flow Indicator (612)</li> <li>• FI-115, 34 RCP Seal Injection Flow Indicator (613)</li> </ul> b. INCREASE <u>EACH</u> RCP Seal Injection to 10 - 12 gpm by increasing charging pump speed.  c. CONTINUE Boration for GREATER THAN 35 Minutes.  d. <u>WHEN</u> Boration is completed, <u>THEN</u> SECURE BAT Pump.	
-END OF ATTACHMENT-		

ONOP-FP-1A  
FOLDOUT PAGE

**1. CST LEVEL CRITERIA**

IF CST level decreases to 3 feet, THEN DIRECT Maintenance to align city water supply by opening PCV-1187, 1188, and 1189 locally per ELC-004-FIR, APPENDIX "R" REPAIR.

**2. CONTROL ROOM REENTRY CRITERIA:**

WHEN FSS has completed Fire Brigade duties, THEN PERFORM the following:

- a. FSS - RELIEVE CRS at PAB 55 ft. local PRZR pressure and level Control panel
- b. CRS - WHEN relieved by FSS, THEN PERFORM the following from CR if possible:
  - MONITOR plant status.
  - OPERATE equipment.
  - ASSIST in Emergency Plan implementation.

**3. SERVICE WATER TEMPERATURE CRITERIA:**

IF Backup Service Water Pump(s) are in service AND discharge canal temperature is greater than or equal to 95°F, THEN SM should REQUEST that Unit 2 reduce power or shutdown to decrease discharge canal temperature to less than 95°F.

Appendix C	Job Performance Measure Worksheet	Form ES-C-1
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Facility: Indian Point Unit 3 Task No.: 039 001 04 04

Task Title: Local Operation of Atmospheric  
Steam Dump Valves JPM No.: 2003 NRC P2

K/A Reference: 068 AA1.01 4.3/4.5

Examinee:

NRC Examiner:

Facility Evaluator:

Date:

Method of testing:

Simulated Performance:   X   Actual Performance:             
Classroom            Simulator            Plant   X  

### READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions: Communication is established with the RO via radio.

31 (32, 33, 34) SG pressure is 1040 psig.

A fire occurred in the Control Building resulting in a Control Room evacuation.

Task Standard: Establish Local Control of 31 (32, 33, 34) Atmospheric Steam Dump Valve and decrease 31 (32, 33, 34) SG pressure to 1005 in accordance with SOP-ESP-1.

Required Materials: AP 52  
SOP ESP-1  
Adjustable Wrench  
Flashlight

General References: AP 52  
SOP ESP-1

Handouts: NONE

Initiating Cue: You are directed by the CRS to establish Local Control of 31 (32, 33, 34) SG atmospheric and decrease pressure to 1005 psig in accordance with SOP-ESP-1. No SG atmospherics have failed open.

Time Critical Task: NO

Validation Time: 10 Minutes

(Denote Critical Steps with an asterisk)

**Performance Step: 1** Obtain and review procedure SOP-ESP-01.

**Standard:** Obtain and review SOP-ESP-01.

**Comment:** **CUE: Evaluator provides a copy of SOP-ESP-01.**

\* **Performance Step: 2** CLOSE valve No. 1, Air Booster Relay Valve.

**Standard:** Turn Valve No. 1 90 degrees clockwise.

**Comment:** **CUE: Valve No. 1 handle is perpendicular to pipe.**

**Performance Step: 3** Verify Valve No. 2, vent is CLOSED.

**Standard:** Observe vent valve handle.

**Comment:** **CUE: Valve No. 2 handle is perpendicular to pipe.**

**Performance Step: 4** Verify Valve No. 3, N2 Supply Header Pressure Gauge Isolation Valve, is OPEN.

**Standard:** Rotate handwheel clockwise to verify free movement, then return to fully counterclockwise position.

**Comment:** **CUE: Valve handwheel moves freely in clockwise direction. No longer moves in the counterclockwise direction.**

**Performance Step: 5** Back Valve No. 7, manual Regulator used for controlling atmospheric, all the way out.

**Standard:** Rotate manual press regulator knob counterclockwise until it stops.

**Comment:** **CUE: Manual pressure regulator stops turning in the counterclockwise direction.**

- 
- |                              |  |
|------------------------------|--|
| <b>* Performance Step: 6</b> | OPEN Valve No. 4, N2 Supply Header to SG Manual Regulator for atmospheric.   |
| <b>Standard:</b>             | Rotate handwheel for N2 supply valve counterclockwise until it stops.  |
| <b>Comment:</b>              | <b>CUE: N2 Supply Valve 4 stops turning in the counterclockwise direction.</b>   |
| <br>                         |  |
| <b>* Performance Step: 7</b> | Open Valve No. 5, Manual Regulator for Atmospheric N2 Supply Isolation.  |
| <b>Standard:</b>             | Rotate handwheel for N2 supply valve counterclockwise until it stops.  |
| <b>Comment:</b>              | <b>CUE: N2 Supply Valve 5 stops turning in the counterclockwise direction.</b>   |
| <br>                         |  |
| <b>* Performance Step: 8</b> | Open Valve No. 6, Manual Regulator for Atmospheric N2 Outlet Isolation.  |
| <b>Standard:</b>             | Turn N2 supply valve 90 degrees to open.   |
| <b>Comment:</b>              | <b>CUE: N2 supply valve 6 turns 90 degrees parallel with pipe.</b>   |
| <br>                         |  |
| <b>Performance Step: 9</b>   | Verify adequate N2 pressure.   |
| <b>Standard:</b>             | Observe N2 pressure to determine if it is at least 45 psig.  |
| <b>Comment:</b>              | <b>CUE: N2 pressure is 50 psig.</b>  |
| <br>                         |  |
| <b>Performance Step: 10</b>  | Maintain all four SG at approximately the same pressure (A pressure difference of 125 psid between SGs will actuate Safety Injection). |
| <b>Standard:</b>             | Pressure in all four SGs within 125 psig of each other.  |
| <b>Comment:</b>              | <b>CUE; 31 (32, 33, 34) SG is 1040 psig.</b>   |

- 
- \* **Performance Step: 11** If desired to open or throttle open SG atmospheric, then slowly increase diaphragm pressure using Valve No. 7, manual regulator used for controlling atmospheric, until desired valve position is obtained.
- Standard:** Valve No. 7 handwheel rotated clockwise.
- Comment:** **CUE: Audible steam flow noises can be heard from elevation above and 31 (32, 33, 34) SG is 1005 psig and decreasing.**
- \* **Performance Step: 12** If desired to close or throttle SG atmospheric, then adjust Valve No. 7, Manual Regulator used for controlling atmospheric. If necessary, open Valve No. 2, vent, until desired position is obtained.
- Standard:** Valve No. 7 handwheel throttle counterclockwise; if necessary then open valve No. 2, vent, until desired valve position is obtained.
- Comment:** **CUE: Valve No. 7 is throttle in the counterclockwise direction. 31 (32, 33, 34) SG pressure decrease slows, turns and stabilizes at 1005 psig.**
- Performance Step: 13** Inform RO that 31 (32, 33, 34) SG pressure is being locally controlled at 1005 psig.
- Standard:** RO informed.
- Comment:** **CUE: RO acknowledges.**
- Performance Step: 14** Inform Evaluator JPM complete.
- Standard:** JPM Evaluator informed that JPM is complete.
- Comment:** **CUE: JPM is complete.**
- Terminating Cue:** When SG pressure is under local control, the evaluation for this JPM is complete



Job Performance Measure No.: 2003 NRC P2

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

Examiner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## INITIAL CONDITIONS:

Communication is established with the RO via radio.

31 (32, 33, 34) SG pressure is 1040 psig.

A fire occurred in the Control Building resulting in a Control Room evacuation.

## INITIATING CUE:

You are directed by the CRS to establish Local Control of 31 (32, 33, 34) SG atmospheric and decrease pressure to 1005 psig in accordance with SOP-ESP-1. No SG atmospherics have failed open.

Facility: Indian Point Unit 3 Task No.: 063 002 01 04  
Task Title: Start Up Battery Charger 31 JPM No.: 2003 NRC P3  
K/A Reference: 063 A4.01 3.3/3.1

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance:   X   Actual Performance:             
Classroom            Simulator            Plant   X  

**READ TO THE EXAMINEE**

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Initial Conditions: Battery Charger 31 was secured for Preventive Maintenance. Work is complete and the Holdoff is cleared.

Task Standard: Battery Charger 31 is operating normally in accordance with SOP-EL-3.

Required Materials: SOP-EL-3

General References: SOP-EL-3

Handouts: NONE

Initiating Cue: You are directed by the CCR to start up 31 Battery Charger per SOP-EL-3, section 4.1.

Time Critical Task: NO

Validation Time: 15 Minutes

(Denote Critical Steps with an asterisk)

**Performance Step: 1** Obtain and review SOP-EL-03.

**Standard:** Obtain and review SOP-EL-03.

**Comment:**

- \* **Performance Step: 2** Place 31 Battery Charger Breaker in ON at MCC-39.  
**Standard:** Pull up on breaker handle for supply to batter charger.

**Comment:** **CUE: The supply breaker handle is up.**

**Performance Step: 3** Ensure Equalize-Float Toggle Switch is in FLOAT.  
**Standard:** Observe "Equalize-Float" Toggle Switch position.

**Comment:** **CUE: The Equalize/Float Toggle Switch indicates FLOAT.**

- \* **Performance Step: 4** Place DC Output Breaker in ON.  
**Standard:** Pull up on DC breaker handle.

**Comment:** **CUE: The DC Output Breaker handle is up.**

- \* **Performance Step: 5** Place AC Input Breaker in ON.  
**Standard:** Pull up on AC breaker handle.

**Comment:** **CUE: The AC input breaker handle is up.**

**Performance Step: 6** Verify AC ON indicating light illuminates.  
**Standard:** Observe indicating light.

**Comment:** **CUE: The AC ON indicating light is ILLUMINATED.**

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**Performance Step: 7**      Verify Battery Charger DC Amperes increases.  
**Standard:**                Observe DC Ampmeter indication.

**Comment:**                **CUE:    The DC Ampmeter Indication Increases.**

**Performance Step: 8**      Ensure Battery Charger DC volts indicates approximately 131  
   (130 to 132.5) VDC by adjusting float adjust potentiometer.  
**Standard:**                Adjust float adjust potentiometer to ensure DC volts between 130  
   and 132.5

**Comment:**                **CUE:    DC volts indicate 131.**

**Terminating Cue:**                31 Battery Charger is operating.

Job Performance Measure No.: 2003 NRC P3

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT \_\_\_\_\_ UNSAT \_\_\_\_\_

Examiner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

INITIAL CONDITIONS:      Battery Charger 31 was secured for Preventive Maintenance.  
Work is complete and the Holdoff is cleared.

INITIATING CUE:          You are directed by the CCR to start up 31 Battery Charger per  
SOP-EL-3, section 4.1.